



IFWO

RAW SEQUENCE LISTING

DATE: 08/19/2004

PATENT APPLICATION: US/10/764,201

TIME: 15:29:22

Input Set : A:\08729~1.txt

Output Set: N:\CRF4\08192004\J764201.raw

3 <110> APPLICANT: Eakle, Kurt

4 Hope, Thomas

5 Choi, Eun-A

6 Homan, Jane

7 Bremel, Robert D.

9 <120> TITLE OF INVENTION: Transgenic Animals Expressing Transdominant Negative
roviral

10 Nucleic Acids and Proteins

12 <130> FILE REFERENCE: GALA-08729

14 <140> CURRENT APPLICATION NUMBER: 10/764,201

15 <141> CURRENT FILING DATE: 2004-01-23

17 <160> NUMBER OF SEQ ID NOS: 18

19 <170> SOFTWARE: PatentIn version 3.2

21 <210> SEQ ID NO: 1

22 <211> LENGTH: 471

23 <212> TYPE: DNA

24 <213> ORGANISM: Bovine leukemia virus

26 <400> SEQUENCE: 1

27 atgcctaaaa aacgacggtc ccgaagacgc ccacaaccga tcatcagatg gcaagtgttg	60
29 ttggttggtgg gcccactct ctacatgcct gcccgccctt ggttttgtcc aatgatgtca	120
31 ccategatgc ctggtgcccc ctctgcgggc cccatgagcg actccaattc gaaaggatcg	180
33 acaccacgct cactgcgag acccaccgta tcaactggac cgccgatgga cgaccttgcg	240
35 gcctcaatgg aacgttgttc cctcgactgc atgtctccga gacccgcccc caagggcccc	300
37 gacgactctg gatcaactgc ccccttcggc cgttcgcgc tcagcccggc ccggtttcac	360
39 tttccccctt cgagcgttc ccttcaccgc cctaccaatg ccaattgccc tcggcctcta	420
41 gcgacggttg cccattatc gggcacggcc ttcttccttg gaacaactta g	471

44 <210> SEQ ID NO: 2

45 <211> LENGTH: 156

46 <212> TYPE: PRT

47 <213> ORGANISM: Bovine leukemia virus

49 <400> SEQUENCE: 2

51 Met Pro Lys Lys Arg Arg Ser Arg Arg Arg Pro Gln Pro Ile Ile Arg	
52 1 5 10 15	
55 Trp Gln Val Leu Leu Val Gly Gly Pro Thr Leu Tyr Met Pro Ala Arg	
56 20 25 30	
59 Pro Trp Phe Cys Pro Met Met Ser Pro Ser Met Pro Gly Ala Pro Ser	
60 35 40 45	
63 Ala Gly Pro Met Ser Asp Ser Asn Ser Lys Gly Ser Thr Pro Arg Ser	
64 50 55 60	
67 Pro Ala Arg Pro Thr Val Ser Thr Gly Pro Pro Met Asp Asp Leu Ala	
68 65 70 75 80	
71 Ala Ser Met Glu Arg Cys Ser Leu Asp Cys Met Ser Pro Arg Pro Ala	
72 85 90 95	
75 Pro Lys Gly Pro Asp Asp Ser Gly Ser Thr Ala Pro Phe Arg Pro Phe	



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76          100          105          110
79 Ala Leu Ser Pro Ala Arg Phe His Phe Pro Pro Ser Ser Gly Pro Pro
80          115          120          125
83 Ser Ser Pro Thr Asn Ala Asn Cys Pro Arg Pro Leu Ala Thr Val Ala
84          130          135          140
87 Pro Leu Ser Gly Thr Ala Phe Phe Pro Gly Thr Thr
88 145          150          155
91 <210> SEQ ID NO: 3
92 <211> LENGTH: 471
93 <212> TYPE: DNA
94 <213> ORGANISM: Bovine leukemia virus
96 <400> SEQUENCE: 3
97 atgcctaaaa aacgacggtc ccgaagacgc ccacaaccga tcatcagatg gcaagtgttg      60
99 ttggttgggg gccccactct ctacatgcct gcccggccct gatcttgtcc aatgatgtca      120
101 ccatcgatgc ctggtgcccc ctctgcgggc cccatgagcg actccaattc gaaaggatcg      180
103 acaccacgct cacctgcgag acccaccgta tcaactggac cgccgatgga cgaccttgcg      240
105 gcctcaatgg aacgttggtc cctcgactgc atgtctccga gaccgcccc caagggcccc      300
107 gacgactctg gatcaactgc ccccttccgg ccgttcgcgc tcagcccggc ccggtttcac      360
109 ttccccctt cgagcgggtc cccttccagc cctaccaatg ccaattgcc tcggcctcta      420
111 gcgacggttg cccattatc gggcacggcc ttcttccttg gaacaactta g      471
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115 <211> LENGTH: 471
116 <212> TYPE: DNA
117 <213> ORGANISM: Bovine leukemia virus
119 <400> SEQUENCE: 4
120 atgcctaaaa aacgacggtc ccgaagacgc ccacaaccga tcatcagatg gcaagtgttg      60
122 ttggttgggg gccccactct ctacatgcct gcccggccct ggttttgtcc agatctgtca      120
124 ccatcgatgc ctggtgcccc ctctgcgggc cccatgagcg actccaattc gaaaggatcg      180
126 acaccacgct cacctgcgag acccaccgta tcaactggac cgccgatgga cgaccttgcg      240
128 gcctcaatgg aacgttggtc cctcgactgc atgtctccga gaccgcccc caagggcccc      300
130 gacgactctg gatcaactgc ccccttccgg ccgttcgcgc tcagcccggc ccggtttcac      360
132 ttccccctt cgagcgggtc cccttccagc cctaccaatg ccaattgcc tcggcctcta      420
134 gcgacggttg cccattatc gggcacggcc ttcttccttg gaacaactta g      471
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138 <211> LENGTH: 471
139 <212> TYPE: DNA
140 <213> ORGANISM: Bovine leukemia virus
142 <400> SEQUENCE: 5
143 atgcctaaaa aacgacggtc ccgaagacgc ccacaaccga tcatcagatg gcaagtgttg      60
145 ttggttgggg gccccactct ctacatgcct gcccggccct ggttttgtcc aatgatgtca      120
147 ccatcgatgc ctggtgcccc ctctgcgggc cccatgagcg actccaattc gaaaggatcg      180
149 acaccacgct cacctgcgag acccaccgta tcaactggac cgccgatgga cgaccttgcg      240
151 gcctcaatgg aacgttggtc cctcgactgc atgtctccga gaccgcccc caagggcccc      300
153 gacgactctg gatcaactgc ccccttccgg ccgttcgcgc tcagcccggc ccggttagat      360
155 ctccccctt cgagcgggtc cccttccagc cctaccaatg ccaattgcc tcggcctcta      420
157 gcgacggttg cccattatc gggcacggcc ttcttccttg gaacaactta g      471
160 <210> SEQ ID NO: 6
161 <211> LENGTH: 606
162 <212> TYPE: DNA

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163 <213> ORGANISM: Bovine leukemia virus
165 <400> SEQUENCE: 6
166 atgcctaaaa aacgacggtc ccgaagacgc ccacaaccga tcatcagatg gcaagtgttg      60
168 ttggttgggg gcccactct ctacatgcct gcccgcccca gatctgtcac catcgatgcc      120
170 tgggtgcccc tctgcgggcc ccatgagcga ctccaattcg aaaggatcga caccacgctc      180
172 acctgcgaga cccaccgtat caactggacc gccgatggac gaccttgagg cctcaatgga      240
174 acgttggttc ctgcactgca tgtctccgag acccgccccc aaggggcccg acgactctgg      300
176 atcaactgcc ccttcgcggc cgttcgcgct cagcccgggc cggtttagatc ttcccccttc      360
178 gagecggctcc ccttcagacc ctaccaatgc caattgccct cggcctctag cgacggttgc      420
180 cccattatcg ggcacggcct tcttcctgg aacaacttag taacgcaccc tgcctcaga      480
182 aaagtcctta tattaaatca aatgggacct cgagggggggg cccgaattcc ggatctttgt      540
184 gaaggaacct tacttctgtg gtgtgacata attggacaaa ctacctacag agatttaaag      600
186 ctctaa                                           606
189 <210> SEQ ID NO: 7
190 <211> LENGTH: 105
191 <212> TYPE: DNA
192 <213> ORGANISM: Bovine leukemia virus
194 <400> SEQUENCE: 7
195 atgcctaaag aacgacggtc ccgaagacgc ccacaaccga tcatcagatg gcaagtgttg      60
197 ttggttgggg gcccactct ctacatgcct gcccgcccca gatct      105
200 <210> SEQ ID NO: 8
201 <211> LENGTH: 156
202 <212> TYPE: PRT
203 <213> ORGANISM: Bovine leukemia virus
205 <400> SEQUENCE: 8
207 Met Pro Lys Lys Arg Arg Ser Arg Arg Arg Pro Gln Pro Ile Ile Arg
208 1 5 10 15
211 Trp Gln Val Leu Leu Val Gly Gly Pro Thr Leu Tyr Met Pro Ala Arg
212 20 25 30
215 Pro Arg Ser Cys Pro Met Met Ser Pro Ser Met Pro Gly Ala Pro Ser
216 35 40 45
219 Ala Gly Pro Met Ser Asp Ser Asn Ser Lys Gly Ser Thr Pro Arg Ser
220 50 55 60
223 Pro Ala Arg Pro Thr Val Ser Thr Gly Pro Pro Met Asp Asp Leu Ala
224 65 70 75 80
227 Ala Ser Met Glu Arg Cys Ser Leu Asp Cys Met Ser Pro Arg Pro Ala
228 85 90 95
231 Pro Lys Gly Pro Asp Asp Ser Gly Ser Thr Ala Pro Phe Arg Pro Phe
232 100 105 110
235 Ala Leu Ser Pro Ala Arg Phe His Phe Pro Pro Ser Ser Gly Pro Pro
236 115 120 125
239 Ser Ser Pro Thr Asn Ala Asn Cys Pro Arg Pro Leu Ala Thr Val Ala
240 130 135 140
243 Pro Leu Ser Gly Thr Ala Phe Phe Pro Gly Thr Thr
244 145 150 155
247 <210> SEQ ID NO: 9
248 <211> LENGTH: 156
249 <212> TYPE: PRT
250 <213> ORGANISM: Bovine leukemia virus

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252 <400> SEQUENCE: 9

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254 Met Pro Lys Lys Arg Arg Ser Arg Arg Arg Pro Gln Pro Ile Ile Arg
255 1          5          10          15
258 Trp Gln Val Leu Leu Val Gly Gly Pro Thr Leu Tyr Met Pro Ala Arg
259          20          25          30
262 Pro Trp Phe Cys Pro Asp Leu Ser Pro Ser Met Pro Gly Ala Pro Ser
263          35          40          45
266 Ala Gly Pro Met Ser Asp Ser Asn Ser Lys Gly Ser Thr Pro Arg Ser
267          50          55          60
270 Pro Ala Arg Pro Thr Val Ser Thr Gly Pro Pro Met Asp Asp Leu Ala
271 65          70          75          80
274 Ala Ser Met Glu Arg Cys Ser Leu Asp Cys Met Ser Pro Arg Pro Ala
275          85          90          95
278 Pro Lys Gly Pro Asp Asp Ser Gly Ser Thr Ala Pro Phe Arg Pro Phe
279          100         105         110
282 Ala Leu Ser Pro Ala Arg Phe His Phe Pro Pro Ser Ser Gly Pro Pro
283          115         120         125
286 Ser Ser Pro Thr Asn Ala Asn Cys Pro Arg Pro Leu Ala Thr Val Ala
287          130         135         140
290 Pro Leu Ser Gly Thr Ala Phe Phe Pro Gly Thr Thr
291 145         150         155

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294 <210> SEQ ID NO: 10

295 <211> LENGTH: 156

296 <212> TYPE: PRT

297 <213> ORGANISM: Bovine leukemia virus

299 <400> SEQUENCE: 10

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301 Met Pro Lys Lys Arg Arg Ser Arg Arg Arg Pro Gln Pro Ile Ile Arg
302 1          5          10          15
305 Trp Gln Val Leu Leu Val Gly Gly Pro Thr Leu Tyr Met Pro Ala Arg
306          20          25          30
309 Pro Trp Phe Cys Pro Met Met Ser Pro Ser Met Pro Gly Ala Pro Ser
310          35          40          45
313 Ala Gly Pro Met Ser Asp Ser Asn Ser Lys Gly Ser Thr Pro Arg Ser
314          50          55          60
317 Pro Ala Arg Pro Thr Val Ser Thr Gly Pro Pro Met Asp Asp Leu Ala
318 65          70          75          80
321 Ala Ser Met Glu Arg Cys Ser Leu Asp Cys Met Ser Pro Arg Pro Ala
322          85          90          95
325 Pro Lys Gly Pro Asp Asp Ser Gly Ser Thr Ala Pro Phe Arg Pro Phe
326          100         105         110
329 Ala Leu Ser Pro Ala Arg Leu Asp Leu Pro Pro Ser Ser Gly Pro Pro
330          115         120         125
333 Ser Ser Pro Thr Asn Ala Asn Cys Pro Arg Pro Leu Ala Thr Val Ala
334          130         135         140
337 Pro Leu Ser Gly Thr Ala Phe Phe Pro Gly Thr Thr
338 145         150         155

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341 <210> SEQ ID NO: 11

342 <211> LENGTH: 201

343 <212> TYPE: PRT

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Input Set : A:\08729~1.txt

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344 <213> ORGANISM: Bovine leukemia virus

346 <400> SEQUENCE: 11

348 Met Pro Lys Lys Arg Arg Ser Arg Arg Arg Pro Gln Pro Ile Ile Arg

349 1 5 10 15

352 Trp Gln Val Leu Leu Val Gly Gly Pro Thr Leu Tyr Met Pro Ala Arg

353 20 25 30

356 Pro Arg Ser Val Thr Ile Asp Ala Trp Cys Pro Leu Cys Gly Pro His

357 35 40 45

360 Glu Arg Leu Gln Phe Glu Arg Ile Asp Thr Thr Leu Thr Cys Glu Thr

361 50 55 60

364 His Arg Ile Asn Trp Thr Ala Asp Gly Arg Pro Cys Gly Leu Asn Gly

365 65 70 75 80

368 Thr Leu Phe Pro Arg Leu His Val Ser Glu Thr Arg Pro Gln Gly Pro

369 85 90 95

372 Arg Arg Leu Trp Ile Asn Cys Pro Leu Pro Ala Val Arg Ala Gln Pro

373 100 105 110

376 Gly Pro Val Arg Ser Ser Pro Phe Glu Arg Ser Pro Phe Gln Pro Tyr

377 115 120 125

380 Gln Cys Gln Leu Pro Ser Ala Ser Ser Asp Gly Cys Pro Ile Ile Gly

381 130 135 140

384 His Gly Leu Leu Pro Trp Asn Asn Leu Val Thr His Pro Val Leu Arg

385 145 150 155 160

388 Lys Val Leu Ile Leu Asn Gln Met Gly Pro Arg Gly Gly Ala Arg Ile

389 165 170 175

392 Pro Asp Leu Cys Glu Gly Thr Leu Leu Leu Trp Cys Asp Ile Ile Gly

393 180 185 190

396 Gln Thr Thr Tyr Arg Asp Leu Lys Leu

397 195 200

400 <210> SEQ ID NO: 12

401 <211> LENGTH: 35

402 <212> TYPE: PRT

403 <213> ORGANISM: Bovine leukemia virus

405 <400> SEQUENCE: 12

407 Met Pro Lys Glu Arg Arg Ser Arg Arg Arg Pro Gln Pro Ile Ile Arg

408 1 5 10 15

411 Trp Gln Val Leu Leu Val Gly Gly Pro Thr Leu Tyr Met Pro Ala Arg

412 20 25 30

415 Pro Arg Ser

416 35

419 <210> SEQ ID NO: 13

420 <211> LENGTH: 133

421 <212> TYPE: PRT

422 <213> ORGANISM: Human T-cell leukemia virus

424 <400> SEQUENCE: 13

426 Met Pro Lys Thr Arg Arg Arg Pro Arg Arg Ser Gln Arg Lys Arg Pro

427 1 5 10 15

430 Pro Thr Pro Trp Pro Thr Ser Gln Gly Leu Asp Arg Val Phe Phe Ser

431 20 25 30

434 Asp Thr Gln Ser Thr Cys Leu Glu Thr Val Tyr Lys Ala Thr Gly Ala

VERIFICATION SUMMARY

PATENT APPLICATION: **US/10/764,201**

DATE: 08/19/2004

TIME: 15:29:24

Input Set : **A:\08729~1.txt**

Output Set: **N:\CRF4\08192004\J764201.raw**